**Additional file 6. Summarized results on the relative risk of MACE of elevated TMAO in patients with CHD.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Study types** | **Number****of studies** | **Pooled HR****(random-effects)** | **Heterogeneity(fixed-effects)** | **Sensitivity analysis a** |
| **95% CI** | **P value** | **I2(%)** | **PQ-test** | **Fixed-effects****pooled HR(95%CI)** | **Reverse correlation** |
| **All** | 9 | 1.58 (1.35-1.84) | 0.000 | 57.7 | 0.015 | 1.38 (1.30-1.46) | No |
| **All (without** **Kaizu X 2018)** | 8 | 1.47 (1.30-1.66)  | 0.000 | 40.7 | 0.107 | 1.37 (1.29-1.46) |
| **ACS b** | 7 | 1.87 (1.41-2.47) | 0.000 | 56.5 | 0.032 | 1.48 (1.35-1.63) |
| **ACS (** **without** **Kaizu X 2018)** | 6 | 1.65 (1.34-2.03) | 0.000 | 31.6 | 0.199 | 1.46 (1.33-1.61) |
| **Chronic CHD b** | 2 | 1.37 (1.11-1.70) | 0.004 | 34.4 | 0.217 | 1.31 (1.21-1.42) |
| **In-hospital c** | 1 | 6.01 (2.03-17.76) | 0.001 | - | - | 6.01 (2.03-17.76) |
| **Follow-up 1-3 years c** | 3 | 1.34 (1.26-1.43) | 0.000 | 0.0 | 0.414 | 1.34 (1.26-1.43) |
| **Follow-up ≥ 4 years c** | 5 | 1.96 (1.52-2.52) | 0.000 | 0.0 | 0.764 | 1.96 (1.52-2.52) |

**ACS**, acute coronary syndrome; **CHD**, coronary heart diseases; **CI,** confidence interval; **HR**, hazard ratio; **I2**, I2 statistics; **MACE,** major adverse cardiovascular events; **P**, P value of Chi-squared Q-tests; **TMAO,** trimethylamine-N-oxide.

**a** Whether reverse outcome associations were found in the sensitivity analysis, by using different analysis models.

**b** The P-value of heterogeneity between these two groups was 0.058.

**c** P-value of heterogeneity among these three subgroups was 0.000.